FEDOROVA, Ye.P.; POLYANTSEVA, A.I.; RAYEVA, K.S.; BITKOVA, S.I.

Occurrence of myocardial infarct among the population of one of the Moscow districts. Sov.med. 26 no.1:12-17 Ja '63. (MIRA 16:4)

1. Iz Instituta terapii (dir. - deystvitel'nyy chlen AMN SSSR prof. A.L. Myasnikov) AMN SSSR.
(MOSCOW--HEART--INFARCTION)

POLYANTSEVA, A.I.

Antisympathin therapy for hypertension. Trudy AMN SSSR 25:72-79 '53. (MLRA 8:8)

(HYPERTENSION)
(ANTISYMPATHIN)

KARELIN, A.A.; POLYANTSEVA, L.R.

Detection of transamidinase in the blood serum and urine in various kidney diseases. Vop. med. khim. 11 no.2:97-99 Mr-Ap '65. (MIRA 18:10)

1. Kafedra biokhimii i kafedra terapii sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo meditsinskogo instituta.

ANDROSOVA, S.O.;APROSINA, Z.G.; BEZRODNYKH, A.A.; VERMEL', A.Ye.; VINOGRADOVA, O.M.; LEVITSKIY, E.R.; MAKARENKO, I.I.; MAKSHANOV, D.A.; POLYANTSEVA, L.R.; SUMAROKOV, A.V.; SHATALOV, N.N.; SHAPIRO, L.A.; TAREYEV , Ye.M., prof., red.; MEL'NIKOV, Ye.B., red.

[Occupational diseases] Professional'nye bolezni; uchebnoe posobie dlia studentov sanitarno-gigienicheskikh fakul'tetov. Pod red. E.M.Tareeva. Moskva, 1963 p. 223 p. (MIRA 16:6)

1. Moscow. Pervyy meditsinskiy institut. 2. AMN SSSR (for Tareyev).

(OCCUPATIONAL DISEASES)

POLYANTSEVA, L.R.; YERMOLENKO, V.M.

Aldosterone and spirolactones in clinical treatment of internal diseases; a survey of the literature and an analysis of our own observations. Sov. med. 27 no.12:42-51 D'63 (MIRA 17:4)

1. Iz kafedry propedevticheskoy i professional'noy terapii sanitarno-gigiyenicheskogo fakul'teta (zav. - deystvitel'nyy chlen AMN SSSR prof. Ye.M.Tareyev) I Moskovskogo meditsinskogo instituta imeni Sechenova i 24-y Moskovskoy gorodskoy klinicheskoy bol'nitsy (glavnyy vrach V.P. Uspenskiy).

POLYANTSEVA, L.R.; MOZEL', A.I.

Hypothiazide as a diuretic and hypotensive agent. Sov. med. 25 no.2:23-29 F '62. (MIRA 15:3)

1. Iz kafedry obshchey terapii i profilakticheskikh zabolevaniy (zav.-deystvitel'nyy chlen AMN SSSR prof. Ye.M. Tareyev) sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova i gorodskoy bol'nitsy No.66 (glavnyy vrach L.I. Sazanova).

(THIADIAZINE)

TAREYEV, Ye.M.; SURA, V.V.; POLYANTSEVA, L.R.

Some problems in the pathogenesis and treatment of nephritis (Experimental data). Vest. AMN SSSR 16 no.12:3-9 '61. (MIRA 15:2)

(KIDNEYS--DISEASES)

POLYANTSEVA, L.R.

Clinical testing of a new diuretic chlorothiazide (chlorurite). Sov.med. 24 no.9:105-109 S '60. (MIRA 13:11)

1. Iz kafedry obshchey i gospital'noy terapii (zav. - deystvitel'nyy chlen AMN SSSR prof. Ye.M. Tareyev) sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

(CHLOROTHIAZIDE)

POLYANTSEVA, L.R.; ROGOV, A.A.

Effect of cortisone on the activity of succinic dehydrogenase in the kidneys in experimental cytotoxic nephritis. Biul. eksp. biol. i med. 50 no.9:61-64 S '60. (MIRA 13:11)

1. Iz kafedry obshchey i gospital'noy terapii sanitarno-gigiyenicheskogo fakul'teta (zav. -deystvitel'nyy chlen AMN SSSR Ye.M.Tareyev) i iz TSentral'noy nauchno-issledovatel'skoy laboratorii imeni S.I. Chechulina (zav. - kandidat meditsinskikh nauk A.S.Chechulin) pri I Moskovskom ordena Lenina institute imeni I.M.Sechenova.
(KIDNEYS—DISEASES) (CORTISONE)
(SUCCINIC DEHYDROGENASE)

SURA, V.V., kand.med.nauk; POLYANTSEVA, L.R.

On lesions of the kidneys in diabetes mellitus. Sov.med. 23 no.9:12-18 S '59. (MIRA 13:1)

1. Iz obshchey i gospital'noy terapevticheskoy kliniki (zav. - deystvitel'nyy chlen AMN SSSR prof. Ye.M. Tareyev) sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.
(DIABETES MELLITUS compl.)
(KIDNEY DISEASES etiol.)

POLYANTSEVA, L.R. (Moskva)

Characteristics of the course of experimental cytotoxic nephritis under the influence of steroid hormones. Pat. fiziol. i eksp. terap. 6 no.1:63-69 Ja-F '62. (MIRA 15:3)

1. Iz kafedry obshchey i gospital'noy terapii (zav. - deystvitel'nyy chlen AMN SSSR prof. Ye.M. Tareyev) sanitarno-gigiyenicheskogo fakul'teta i Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.
(STEROID HORMONES) (KIDNEYS--DISEASES)

POLYANTSEVA, L.R.

The use of ACTH and steroid hormones in nephrities; survey of the literature with an analysis of personal observations. Sov. med. 24 no. 10:73-82 O '60. (MIRA 13:12)

1. Iz kafedry obshchey i gospital'noy terapii (zav. - deystvitel' nyy chlen AMN SSSR prof. Ye.M. Tareyev) Sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.
(KIDNEYS—DISEASES) (ACTH) (STEROIDS)

POLYANTSEV, N.I., kand. veterin. nauk; POLYANTSEVA, N.A., aspirant

Artificially controlled sterilization of young pigs by ultrasonic waves. Veterinariia 41 no.12:47-49 D '64. (MIRA 18:9)

1. Donskoy sel'skokhozyaystvennyy institut.

POLYARKOV, S. G.

USSR/Physics - Solar Energy, Utilization Jun 52

"Solar Equipment," M. V. Kirpichev and V. A. Baum

Nauk i Zhizn', Vol 19, No 6 pp 11-13

Soviet scientists B. P. Veynberg, K. G. Trofimov, B. V. Petukhov, S. G. Polyarkov, G. I. Markov, R. R. Aparisi, and other solar technicians are busy constructing solar water boilers, distillators of sea water, solar kitchens, reflectors for medical purposes, steam kettles, etc. The Heliolaboratory of the Power Engineering Inst Krzhizhanovskiy, Acad Sci USSR, designed a paraboloid mirror of aluminum of 1.2 m diameter and a parabolic-cylindrical mirror with an area of 12 m^2 for solar boilers, for use in the Main Turkmen Canal region.

RefAM

Soloveva (Mme A. I.) & Polyarkova (Mme L. V.). Вилт Хлопчатника. [Wilt of Cotton.]—Tashkent Agricultural Publishing Department, Uzbekistan Soviet Republic, 63 pp., 12 figs., 5 graphs, 1940. [Received January, 1947.]

In this study on cotton wilt (*Verticillium dahliae*) [*R.A.M.*, xvii, p. 814; xxvi, p. 460] the authors state that the widespread and increasing occurrence of the disease causes serious damage to the cotton crops of the U.S.S.R., the losses in the non-resistant varieties being as high as 40 to 60 per cent. Examinations showed that *V. dahliae* inhabits the soil, living on organic matter. Temperatures of −30° and 80° C. did not inactivate the fungus, while growth and germination of the microsclerotia were observed at temperatures ranging from 7° to 32° at 20 per cent. soil humidity, though increased moisture greatly stimulated their growth. *V. dahliae* attacks 27 different plants in Central Asia; cereals were found to be immune. The transmission of the disease by seeds appeared to be negligible.

Investigations during 1933–4 showed that lucerne is an extremely powerful wilt-reducing factor. Cotton grown in fields previously planted with lucerne showed only 6·2, 2·56, and 3 per cent. infection, whereas the controls showed 57·3, 50·6, and 43·8 per cent., respectively. In 1937 the variety 36M2 showed 27·5 per cent. infection after the use of fertilizers compared with 48 per cent. for the control. Dung had no marked effect on resistant varieties, non-resistant ones showed some increase of wilt after its application. The varieties Yakkona, 0208, 8797, 0214, and 4268 are resistant.

POLYARNYY, A.I. and ZEL'DOVICH, Ya, B.

Raschety teplovykh protsessov pri vyskoi temperature (Calculations of thermal processes at high temperatures), Izd. Byuro Novoi Tekh. bez Goroda, Moscow, 1947, 68 pp. 16 references.
Reviewed in Uspekhi Fiz. Nauk, Vol. 34, 1948, pp. 462-463.

POLYARUSH, Yevtikhiy Ivanovich; PETROV, V.F., otv. red.; PYATAYEVA, M.F., red.izd-va; FROLOV, P.M., tekhn.red.

[Sugar cane and its cultivation in the southern part of Central Asia] Sakharnyi trostnik i ego kul'tura na iuge Srednei Azii. Stalinabad, Izd-vo Akad.nauk Tadzh.SSR, 1958. 110 p. (Akademiia nauk Tadzhikskoi SSR. Stalinabad. Trudy, vol.105). (MIRA 12:12)

(Soviet Central Asia--Sugar cane)

POLYARUSH, Ye.; SOLOMONOV, Sh.

Scientific ties between the Economics Section of the Academy of Sciences of the Tajik S.S.R. and the regional economic council. Vop. ekon. no.11:157-158 N '57. (MIRA 11:2)
(Tajikistan--Economic conditions)

POLYARUSH, Ye.; SOLOMONOV, Sh.; STARETS, R., red.; POLTORAK, I., tekhn.red.

[Aromatic plants of Tajikistan] Efiromaslichnye Tadzhikistana. Stalinabad, Tadzhikgosizdat, 1959. 46 p. (MIRA 14:3)

(Tajikistan--Aromatic plants)

POLYASHOV, K., inzh.

Protecting shaft compartments in shaft bottom. Bezop.truda v prom. 3 no.7:34 Jl '59. (MIRA 12:11)
(Mine hoisting)

ACC NR: AP6025885 SOURCE CODE: UR/0292/66/000/005/0002/0006

AUTHOR: Urusov, I. D. (Doctor of technical sciences); Polyashov, L. I. (Engineer)

ORG: none

TITLE: Steady-state processes in a synchronous generator supplying a pulsed load

SOURCE: Elektrotekhnika, no. 5, 1966, 2-6

TOPIC TAGS: synchronous generator, pulsed load

ABSTRACT: Operation of a synchronous generator supplying a periodically-discharging-capacitor load is analyzed theoretically. Differential equations for stator and rotor circuits and flux linkages were solved on a digital computer with these results: (1) Stator current contains 3rd, 5th, 7th ... and rotor current, 6th, 12th, 18th... harmonics; (2) Higher harmonic amplitudes are strengthened due to mutual-induction coupling among stator windings; (3) As the currents and voltages of a salient-pole generator have strong higher harmonics (3rd, 111%; 9th, 31.6%), connection of a special outside reactance is recommended for their reduction; (4) In a nonsalient-pole generator, voltage and current shapes strongly depend on the discharge phase and capacitance; however, the effective value of the higher harmonics varies but little; (5) Under steady-state conditions, the field winding is practically not affected by the stator higher harmonics caused by the nature of load.

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UDC: 621.313.322.001.1

POLUKHIN, V.P.; SKORUPSKIY, V.I.; POLYASHOV, V.S.; KALASHNIKOV, P.P.

Optimal hardness and the elastic deformation of rolls on four-high mills. Izv. vys. ucheb. zav.; chern. met. 8 no.1: 78-84 '65 (MIRA 18:1)

1. Moskovskiy institut stali i splavov.

L 61914-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/
EWP(b)/EWP(l)/EWA(c) Pf-4/Pn-4 JD/HM/EM

ACCESSION NR: AP5017689 UR/0133/65/000/007/0622/0628 41
621.771.0 43
B

AUTHOR: Tselikov, A. I.; Polukhin, V. P.; Polyashov, V. S.; Meyerovich, I. M.

TITLE: Increasing the stiffness of rolling mill housings in connection with the improvement in precision of the sheet rolling process

SOURCE: Stal', no. 7, 1965, 622-628

TOPIC TAGS: rolling mill, elastic deformation, mathematical analysis, pressure measurement, mechanical engineering, housing

ABSTRACT: The stiffness of rolling mill housings is analyzed in terms of the additive elastic deformations of the various elements of the housing, for the purpose of improving the housing stiffness. Experiments were conducted on a contemporary four-high mill of simple design, using a 1700 type housing, with working rolls of 650 mm diameter and supporting rolls of 1700 mm diameter; the maximal tolerance for the force of the metal on the rolls was 2100 T. Data are given for the elastic deformation of different portions of the mill (measured by a strain gauge) as a function of mill pressure. A diagram is shown for the force distribution acting on the

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L 61914-65

ACCESSION NR: AP5017689

3

mill rolls and bearings. Also, the pressure acting on the work rolls and on the supporting rolls is analyzed and presented; this was subtracted from the total pressure and the housing pressure was determined. Experimental data are presented for the elastic deformations of the housing elements and compared with calculated values. These were summed to give the total housing deformation as a function of mill pressure. Mechanical formulas are presented, incorporating the mill variables, and an equation is given for the coefficient of stiffness in terms of the pressure and elastic deformation of the housing elements. It was concluded that this method of increasing the precision of the rolling process should result in improved economy in production. Orig. art. has: 8 figures, 4 tables.

ASSOCIATION: VNIIMETMASh; Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 00 ENCL: 00 SUB CODE: IE, MM

NO REF SOV: 007 OTHER: 000

Card 2/2 glk

POLYASHUK, V.A., inzh.

Boring blast holes of small diameter with the SVB-2 machine.
Sbor. trud. NIIZHelezobetona no.8:68-78 '63 (MIRA 18:1)

POLY/TSHINS, B.M.

C.I.A.

[illegible], Mitzenmaller, [illegible] and Polyatchins, B.M., (Chief of Plastics, [illegible] Institute of Technology). The effect of solvents and temperature on the constants of copolymerization of vinylacetate and [illegible]. 281-85

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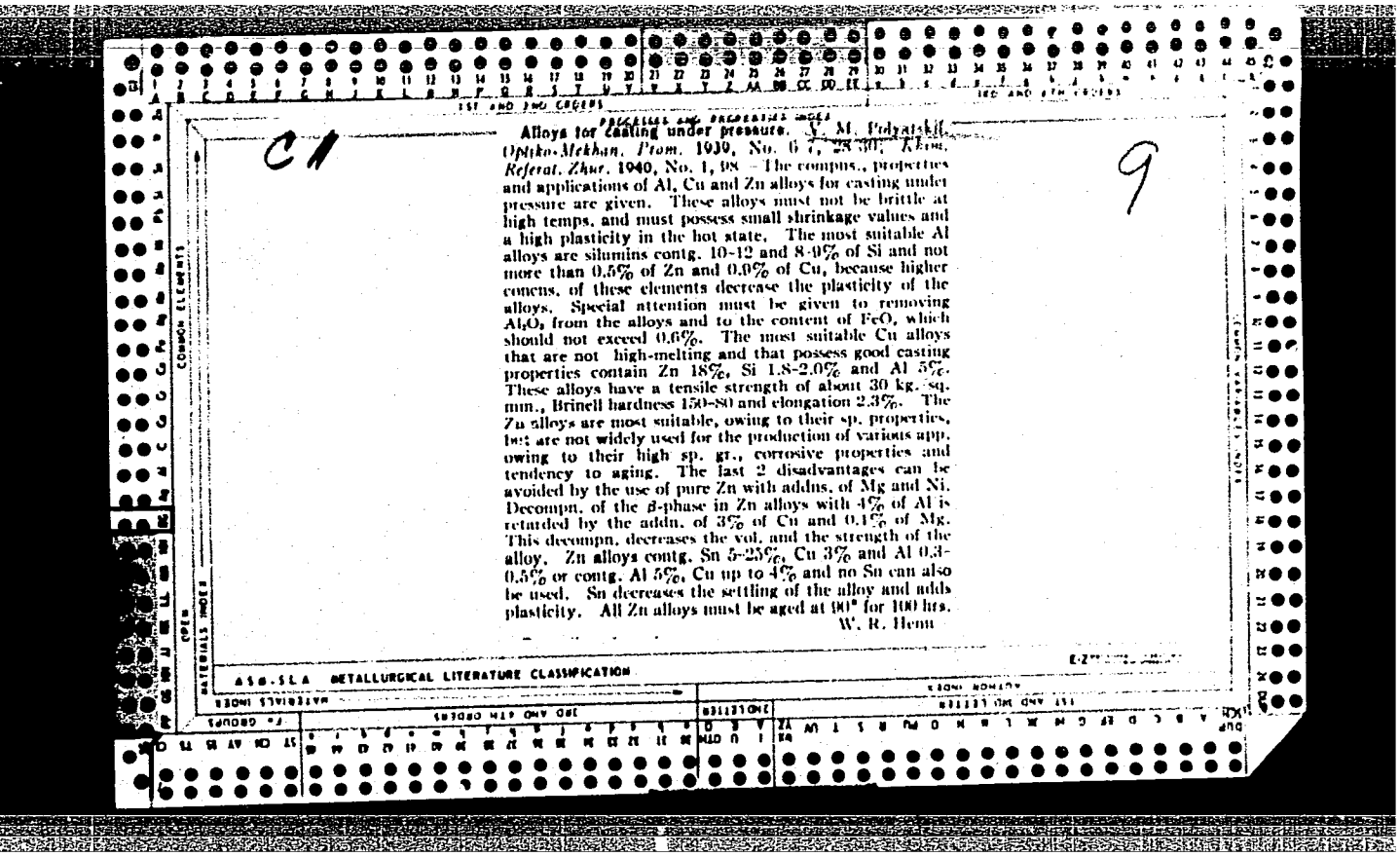

C1

9

Alloys for casting under pressure. V. M. Polyatskii. *Optiko-Mekhan. Prom.* 1939, No. 6, 28-30; *Khim. Referat. Zhur.* 1940, No. 1, 98. — The compns., properties and applications of Al, Cu and Zn alloys for casting under pressure are given. These alloys must not be brittle at high temps. and must possess small shrinkage values and a high plasticity in the hot state. The most suitable Al alloys are silumins contg. 10-12 and 8-9% of Si and not more than 0.5% of Zn and 0.0% of Cu, because higher concns. of these elements decrease the plasticity of the alloys. Special attention must be given to removing Al_2O_3 from the alloys and to the content of FeO, which should not exceed 0.6%. The most suitable Cu alloys that are not high-melting and that possess good casting properties contain Zn 18%, Si 1.8-2.0% and Al 5%. These alloys have a tensile strength of about 30 kg./sq. mm., Brinell hardness 150-80 and elongation 2.3%. The Zn alloys are most suitable, owing to their sp. properties, but are not widely used for the production of various app. owing to their high sp. gr., corrosive properties and tendency to aging. The last 2 disadvantages can be avoided by the use of pure Zn with addns. of Mg and Ni. Decompn. of the β-phase in Zn alloys with 4% of Al is retarded by the addn. of 3% of Cu and 0.1% of Mg. This decompn. decreases the vol. and the strength of the alloy. Zn alloys contg. Sn 5-25%, Cu 3% and Al 0.3-0.5% or contg. Al 5%, Cu up to 4% and no Sn can also be used. Sn decreases the settling of the alloy and adds plasticity. All Zn alloys must be aged at 90° for 100 hrs.

W. R. Henn

YAVORSKIY, N.A.; POLYARUSH, Ye.F.; POGULYAUKO, N.M.

X-ray diagnosis of fallible anastomoses following resection of the stomach. Klin. khir. no.3:75-77 '65. (MIRA 18:8)

1. Rentgenologicheskoye otdeleniye (zav. - N.A.Yavorskiy) Vinnitskoy oblastnoy bol'nitsy imeni Pirogova (nauchnyy rukovoditel' - dotsent B.Z.Sukhorukov) i kafedra fakul'tetskoy khirurgii (zav. - prof. I.M.Grabchenko) Vinnitskogo meditsinskogo instituta.

POLYARUSH, Ye.I.

Accumulation of sugar in sugar cane in the southern part of Central Asia. Dokl. AN Tadzh. SSR 1 no.2:57-60 '58. (MIRA 12:1)

1.Predstavlene akademikom AN Tadzhikskoy SSR V.P. Krasichkovym.
(Soviet Central Asia--Sugar cane)

KHODOV, M.P.; POLYASHCHUK, L.D.

The SKG-40 crawler-type diesel-electric crane. Stroi. i dor. mash. 10 no.10:9-11 O '65. (MIRA 18:10)

SHTEYN, A.A., prof.; POLYASHOVA, T.I.

Leucocytic reaction as a prognostic index of the effectiveness of autohemotherapy. Vrach.delo no.12:79-81 D '62. (MIRA 15:12)

1. Kafedra kozhnykh bolezney (zav. - prof. A.A.Shteyn) L'vovskogo meditsinskogo instituta i L'vovskiy oblastnoy protivovenerologicheskiy dispanser.
(LEUCOCYTES) (BLOOD AS FOOD OR MEDICINE)

L 13421-66 EWP(j)/T RPL WW/RM

ACC NR: AP6006880 SOURCE CODE: PO/0046/65/010/008/0469/0476

AUTHOR: Polyatski, Zenon--Polacki, Z.; Grodel', Mar'yan--Grodel, M.

ORG: Polytechnical Institute, Gdansk (Politekhnickeskiy institut)

TITLE: Radioluminescence of styrenemethylmethacrylate copolymers

SOURCE: Nukleonika, v. 10, no. 8, 1965, 469-476

TOPIC TAGS: radioluminescence, copolymer, styrene, methylmethacrylate, light emission

ABSTRACT: The concentration dependence of the radioluminescence efficiency of solutions of styrene in methylmethacrylate were studied before and after polymerization. Conclusions were drawn indirectly from the measurements of the relative light emission intensity of 2-(1-naphthyl)-5-phenyloxazole, which was added to the solutions as an admixture with unchanged concentration. With dilution of styrene by methylmethacrylate the radioluminescence intensity decreased, thus methylmethacrylate can be considered as absorbing substance causing the quenching of radioluminescence. It was established that the radioluminescence efficiency of solutions of 80% styrene and 20% methylemthacrylate was equal to that of polystyrene solutions. The authors thank Professor V. Mostsitskiy for the valuable advice and interest in this work. Further thanks is extended to I. Kachinskiy for his active assistance in the preparation of the solid solutions. Orig. art. has: 6 figures. [NA]

SUB CODE: 07, 20 / SUBM DATE: 13Jul64 / ORIG REF: 004 / OTH REF: 012

SOV REF: 003

Card 1/1

L 1987-66 EPA/EWT(m)/EPF(c)/EWP(f)/EPF(n)-2/T-2/EWA(c)/ETC(m) WW/WE

ACCESSION NR: AP5018373 UR/0114/65/000/007/0029/0032
621.438.001.5

AUTHOR: Polyatskin, M. A. (Candidate of technical sciences); Tass, O. A. (Engineer); Shatil', A. A. (Candidate of technical sciences)

TITLE: Results of an investigation of aerodynamics and combustion in a gas-turbine combustor

SOURCE: Energomashinostroyeniye, no. 7, 1965, 29-32

TOPIC TAGS: gas turbine, combustion chamber

ABSTRACT: Aerodynamics and combustion were investigated in a conventional gas-turbine combustor supplied with a city gas having a calorific value of 30000 kj/nm^3. A blade-register burner of OD = 226 mm and 4-mm gas ports in 8 hollow blades was used. Two designs of the flame tube ID = 400 mm were tested: (1) Three 180-mm-long shells, one of them welded to a 90°-aperture cone, and the others having 4-mm gaps between them; (2) Two shells with a

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L 65014-65 EWT(m)/EWP(w)/EWP(f)/EWP(v)/T-2/EWP(k)/ETC(m) WW/EM

ACCESSION NR: AP5022029 UR/0286/65/000/014/0099/0099
621.438.082

AUTHOR: Svyatskiy, Z. M.; Polyatskin, M. A.; Shul'man, V. L. 25 B

TITLE: Flame-reversal tube in a sectional combustion chamber for gas turbines. Class 46, No. 173070

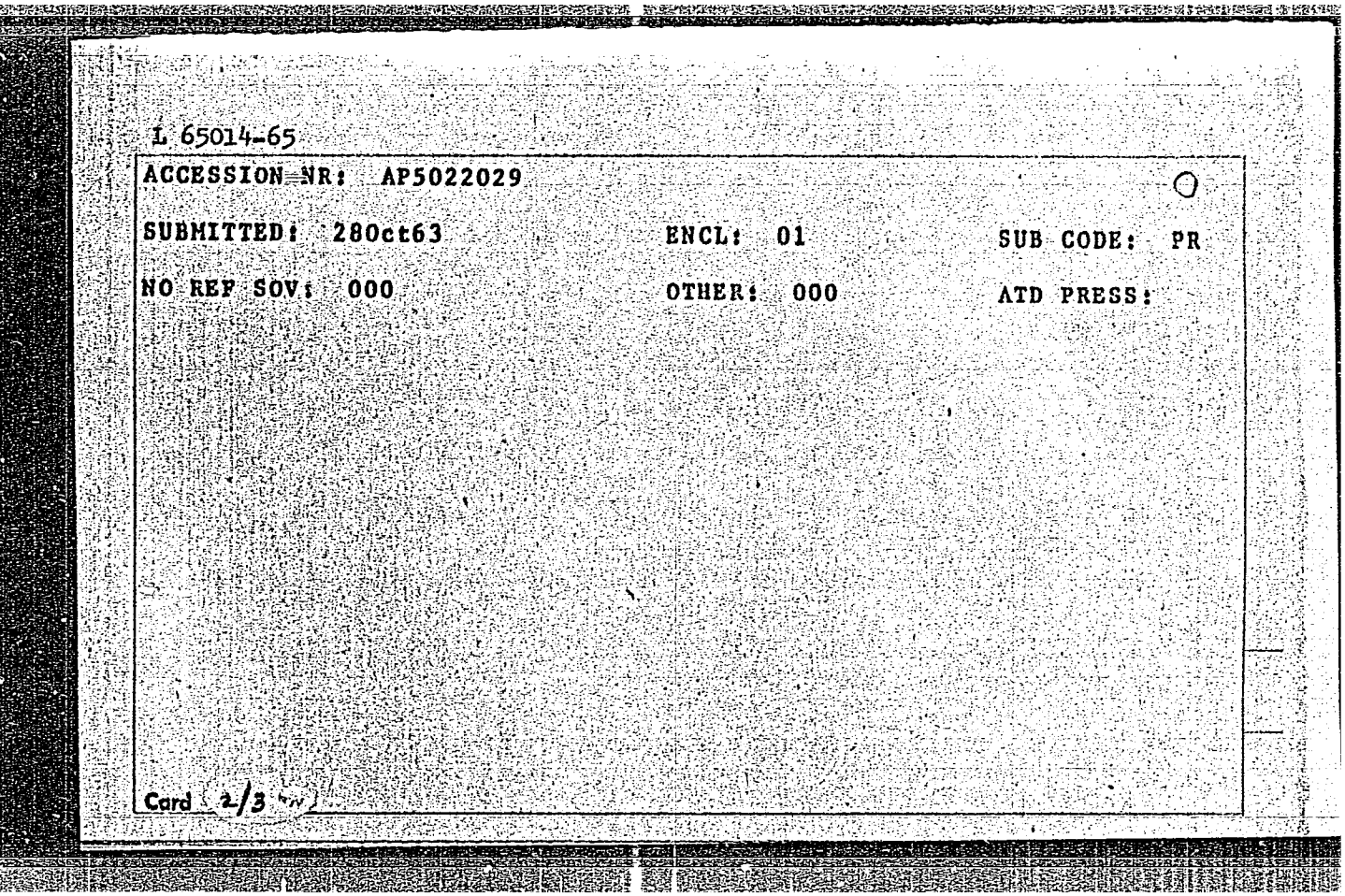
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 99

TOPIC TAGS: flame reversal tube, sectional combustion chamber, gas turbine component, flame transfer

ABSTRACT: An Author Certificate has been issued for a flame-reversal tube in a sectional combustion chamber for gas turbines. For increased efficiency and reliability in flame transfer, the tube is connected with the fuel-feed pipes to its internal cavity for ignition (see Fig. 1 of Enclosure). Orig. art. has: 1 figure. [LB]

ASSOCIATION: none

Card 1/3



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ACCESSION NR: AP5022029

SUBMITTED: 280ct63 ENCL: 01 SUB CODE: PR

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L 65014-65

ACCESSION NR: AP5022029

ENCLOSURE: 01

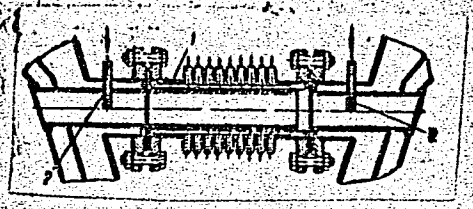

Fig. 1. Flame-reversal tube

1 - Flame-reversal tube;
2 - fuel-feed pipes for ignition.

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AVDEYEVA, A.A., inzh.; POLYATSKIN, M.A., kand. tekhn. nauk

Accuracey of the determination of combustible components in combustion products. Elek. sta. 36 no.11:25-28 N '65. (MIRA 18:10)

POLYATSKIN, M.A.; SHATIL', A.A.; AFROSIMOVA, V.N.

Evaluating the completeness of the processes of mixing and combustion in a boiler furnace burning natural gas. Gaz.prom. 10 no.2:24-27 '65. (MIRA 18:12)

POLYATSKIN, M.A., kand.tekhn.nauk; SHATIL', A.A., kand.tekhn.nauk; POPOVA, A.M., inzh.

Use of the GST-L chromatographic gas analyzer for studying the combustion chambers of gas turbine systems. Energomashinostroenie 7 no.4:26-28 Ap '61. (MIRA 14:7)
(Gas turbines) (Gas--Analysis)

ACCESSION NR: AP4025418 S/0096/64/000/004/0022/0026

AUTHORS: Afrosimova, V. N. (Engineer); Polyatskin, N. A. (Candidate of technical sciences)

TITLE: Investigation of mixing in a cylindrical burner with a peripheral gas distribution

SOURCE: Teploenergetika, no. 4, 1964, 22-26

TOPIC TAGS: gas combustion chamber, cylindrical combustion chamber, peripheral gas injection, gas mixing

ABSTRACT: The mixing of gas introduced into a uniformly flowing air stream from a row of peripheral openings in a cylindrical combustion chamber was studied by using the equipment and method described by V. N. Afrosimova and N. A. Polyatskin ("Teploeenergetika" No. 9, 1963). The mixing effectiveness $X = \frac{\int_0^1 (C_i - C_{cr})\, d\bar{F}_i}{C_{cr}}$ (C_i = local concentration, C_{cr} = average concentration, $\bar{F}_i = F_i/F_{tr}$, F_i = area of the ith ring at which C_i is measured, F_{tr} = total area of combustion cyclinder) was

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measured for different values of $\bar{d} = d/D$, $\bar{\rho}^2\bar{v} = \rho_g v_g^2/\rho_a v_a^2$, $\bar{x} = X/D$, $\bar{Q} = \frac{Q_a}{Q_g}$, $\bar{s} = s/d$ (d = diameter of gas orifices, D = diameter of chamber, ρ_g, ρ_a, v_g, v_a = densities and velocities of gas and air respectively, X = distance between gas injection and measuring section, Q_a Q_g = air and gas flow, s = distance between gas orifices). It was found that the concentration x could be correlated by a single curve (for a given $\bar{v} = v_g/v_a$) if it were plotted against the parameter

$$\bar{h}_x = 2b_s\bar{d}\sqrt[3]{\frac{\bar{x}}{\bar{d}}(\bar{\rho v^2})^{1.3}}$$

(where b_s is empirical constant which varies linearly between 0.7 - 0.95 as $\bar{s}$ varies between 2 and 20). The graph so plotted as shown in Fig. 1 on the Enclosure (for $\bar{v} = 3.h_x$) gives the depths to which the gas jet penetrates the air stream. It can be seen from Fig. 1 that x is at a minimum (best mixing) at $\approx \bar{h}_x = 1$ or when the gas jets penetrate to the center of the air stream. Orig. art. has: 5 formulas, 5 figures, and 1 table.

ACCESSION NR: AP4025418

ASSOCIATION: Tsentral'nyy kotloturbinnyy institut (Central Turbine Institute)

SUBMITTED: 00	DATE ACQ: 20Apr64	ENCL: 01
SUB CODE: PR	NO REF SOV: 007	OTHER: 000

Card 3/4

ACCESSION NR: AP4025418

ENCLOSURE: 01

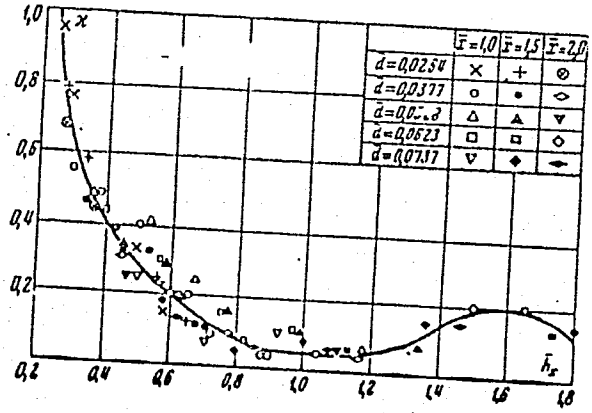

Fig. 1. Mixing effectiveness x as a function of dimensionless penetration depth $\bar{h}_x$.

Card 4/4

AFROSIMOVA, V.N., inzh.; POLYATSKIN, M.A., kand. tekhn. nauk

Study of mixing in a model of a cylindrical burner with peripheral gas outflow. Teploenergetika 11 no.4:22-26 Ap '64. (MIRA 17:6)

1. TSentral'nyy kotloturbinnyy institut.

25418
S/137/61/000/005/007/092
A005/A101

11.7430

AUTHORS: Polyatskin, M.A., Volosova, L.L.

TITLE: The process of mixture formation in gas torch devices

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 6, 1961, 2, abstract 6B8 (V sb. "3-ye Vses. soveshchaniye po teorii goreniya, v. 2," Moscow, 1960, 238 - 249)

TEXT: Models of almost natural size were employed to study the mixture formation in various torches. The gas was modelled by air, heated to 100-120°C. The nature of mixing was determined by measuring temperature fields. The degree of mixing of two gas flows depends considerably on the length of the mixing zone and increases rapidly with its extension in both a restricted and unrestricted space. Whirling of the air or the gas-air mixture with blade paddles (lapatochnyy registr) in torches with central or peripheral gas feed does not increase the degree of mixing, but, on the contrary, impairs the mixing process. An increase of the whirling angle from 45 to 60° causes greater non-uniformity of the gas con-

Card 1/2

25418
S/137/61/000/006/007/092
A006/A101

The process of mixture formation in gas torch devices

centration field in the mixture. Whirling of a gas-air mixture improves slightly the mixing process as compared with the whirling of merely an air flow.

G. Glinkov

[Abstracter's note: Complete translation]

Card 2/2

AFROSIMOVA, V.N., inzh.; POLYATSKIN, M.A., kand. tekhn. nauk

Study of carburetion in a cylindrical model of a peripheral gas burner. Teploenergetika 10 no.9:26-29 S '63. (MIRA 16:10)

1. TSentral'nyy kotloturbinnyy institut.
(Gas burners)

POLYATSKIN, M.A., kand.tekhn.nauk; SHATIL', A.A., kand.tekhn.nauk; KHAYNOVSKIY, Ya.S.; MURASHKO, V.D.

Study of combustion and heat exchange processes in the combustion chamber of a gas turbine system operating on natural gas. Energ. i elektrotekh. prom. no.3:25-30 Jl-S '63. (MIRA 16:10)

POLYATSKIN, M.A., kand.tekhn.nauk; SHATIL', A.A.; KHAYNOVSKIY, Ya.S., inzh.
BABKIN, V.M., inzh.

Torch tips for burning natural gas in the combustion chambers of gas turbine systems. Energomashinostroenie 7 no.7:34-36 Jl '61. (MIRA 14:8)

(Gas turbines)

L 27972-66 ETC(m)-6/T-2/EWP(f) WW/WE

ACC NR: AP6017742 SOURCE CODE: UR/0096/66/000/002/0047/0051

AUTHOR: Polyatskin, M. A. (Candidate of technical sciences); Tass, O. A. (Engineer); Shatil', A. A. (Candidate of technical sciences)

ORG: Central Steam Turbine Institute (Tsentral'nyy kotloturbinnyy institut)

TITLE: Investigation of combined cooling in the combustion chamber of a gas turbine burning gas

SOURCE: Teploenergetika, no. 2, 1966, 47-51

TOPIC TAGS: gas turbine, turbine cooling

ABSTRACT: Results are presented from an experimental investigation of combined cooling of the flame tube in the combustion chamber of a gas turbine apparatus burning gas. The dependence of heat flow on burning regime parameters is investigated. The local heat exchange coefficients in the ring channel and nature of boundary cooling on the inside of the flame tube directed toward the flame are investigated. Graphs of velocity and temperature fields, as well as of the temperatures present at various locations against the amount of internal and external cooling applied and other regime factors, are presented. The dependence presented in the article can be used for approximate calculation of metal temperatures throughout such an installation. Orig. art. has: 6 figures and 3 formulas. [JPRS]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 010

Card 1/1 CC UDC: 621.438.621.43.056

L 20190-66 EWP(f)/EPF(n)-2/T-2/ETC(m)-6 WW/JW/WE
ACC NR: AP6004171 (N) SOURCE CODE: UR/0096/66/000/002/0047/0051

AUTHOR: Polyatskin, M. A. (Candidate of technical sciences); Tass, O. A. (Engineer); Shatil', A. A. (Candidate of technical sciences)

ORG: Central Boiler and Turbine Institute (Tsentral'nyy Kotloturbinnyy Institut)

TITLE: Investigation of the combined cooling of a gas-turbine combustion chamber

SOURCE: Teploenergetika, no. 2, 1966, 47-51

TOPIC TAGS: combustion chamber, flame tube, gas turbine, heat transfer

ABSTRACT: Combined internal and external cooling of the flame tube of a gas turbine combustion chamber was investigated experimentally using both a telescopic flame tube and a flame tube with a single slit, 17 mm wide, with swirl vanes. Measurements were made of the gas and air flow rates, distribution of the temperature and flow velocities along the radius, and the pressure drop along the combustion chamber. The obtained results indicate that the major portion of the heat from the flame tube is removed by external cooling, i.e., by the air flow through the annular duct of the combustion chamber. The use of a single slit with swirl vanes increases the heat transfer coefficient and considerably reduces the flame tube wall temperature. It is noted that the reduction in temperature can also be achieved by using longitudinal or transverse ribs. The obtained relationship for convective heat transfer can be used for

UDC: 621.438.621.43.056

Card 1/2

L 20490-66

ACC NR: AP6004171

approximate calculations of the flame tube wall temperature in combustion chambers of similar design. Orig. art. has: 6 figures and 2 formulas. [AS]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 009/ ATD PRESS: 4215

Card 2/2 Lgc

L 22292-66 EPF(n)-2/EWT(d)/EWT(m)/ETC(m)-6/T/EWP(t) WW/WE
ACC NR: AP6009813 (N) UR/0096/66/000/004/0043/0048

AUTHOR: Polyatskin, M.A. (Candidate of technical sciences); Shatil', A.A. (Candidate of technical sciences); Khaynovskiy, Ya.S. (Candidate of technical sciences); Murashko, V.D. (Engineer); Miroshnichenko, V.I. (Engineer)

ORG: TsKTI; KhTGZ

TITLE: Mixing and combustion processes in the combustion chamber of a gas turbine installation

SOURCE: Teploenergetika, no.4, 1966, 43-48

TOPIC TAGS: gas turbine engine, combustion chamber test, aerodynamic research, natural gas, combustion mechanism, flow structure

ABSTRACT: The article reports the results of aerodynamic investigations of an experimental combustion chamber with three different types of burners. The measurements were made with a three channel cylindrical water cooled probe, at sections located at relative distances L/D from the burner equal to 0.48, 1.1, 1.72, and 2.2 (D is the diameter of the chamber). The fuel was natural gas. Data on the axial mass velocities and the composition of the products of combustion make it possible to establish the distribution of the mass velocities of the fuel being fed over the cross section of the chamber. Calculation of the local values of the mass velocities of the fuel was carried out with the approximate formula:

Card 1/2 UDC: 621.438.621.43.056.001.5

$$B_i = \frac{w_i \rho_i}{L_0 \alpha_i}, \ кг/м^3 \cdot сек, \qquad (1)$$

where w_i and ρ_i are the local velocity and density of the gas; α_i are the local values of the excess air coefficients; L_0 is the stoichiometric coefficient (for the gas used, L_0 = 16.4 kg/kg). The experimental form of the flame in the combustion chamber is illustrated in a series of figures. Other figures show the schematic mixing picture in the combustion chamber. In general, the experimental results indicate that in the combustion the main mechanism is convective transfer which, in turn, is determined by the aerodynamic structure of the flow. Orig. art. has: 5 formulas and 7 figures.

SUB CODE: 21/13/ SUBM DATE: none/ ORIG REF: 013

POLYATSKIN, M.A., kand.tekhn.nauk; SHATIL', A.A., kand.tekhn.nauk; KHAYNOVSKOY, Ya.S., inzh.; SEKUNDA, A.T., inzh.

Testing the experimental GTU-50-800 combustion chamber fired with natural gas. Teploenergetika 9 no.1:20-24 Ja '62. (MIRA 14:12)

1. TSentral'nyy kotloturbinnyy institut im. I.I.Polzunova i Khar'kovskiy turbinnyy zavod imeni Kirova.
(Gas turbines--Testing)
(Gas, Natural)

SOV/96-59-2-5/18

AUTHORS: Polyatskin, M.A., Candidate of Technical Sciences
Svyatskiy, Z.M., Candidate of Technical Sciences

TITLE: A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels (Vysokoforsirovannaya kamera sgoraniya gtu dlya srednikh i tyazhelykh zhidkikh topliv)

PERIODICAL: Teploenergetika, 1959, Nr 2, pp 33-39 (USSR)

ABSTRACT: This article gives the results of adjustment and investigation of a highly rated combustion chamber operating on gas oil, diesel fuel and fuel oil Grade F-12. It was required to develop a combustion chamber which could operate on medium and heavy liquid fuels at ratings of 4×10^6 to 13×10^6 kcal/m^{2}hour atm at a pressure of 3-5 atm, an air temperature of 160 to 230°C, outlet gas temperatures of 450 to 750°C, with a combustion efficiency of 98%. A simple sectional drawing of the combustion chamber is given in Fig 1 and its construction is briefly described. The dimensions of the swirler and of the annular gap between the body of the chamber and the flame tube were

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A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels

chosen to give an air speed in them of about 40 to 50 m/sec under normal conditions. The fuel was atomised by a nozzle fitted in the centre of the swirler. The arrangements made to measure the experimental conditions are described. The combustion chamber aerodynamics were studied in some detail on models and full scale examples. The gas velocity distribution in the combustion chamber is described and graphs are plotted in Fig 2. A special feature of the velocity distribution with the conical swirler used is that there is a central flow of air towards the swirler, that is, in the opposite direction to the main flow. This carries hot gas to the base of the flame, improving its stability and heating the fuel. The flame did not break away from the swirler, even when the amount of air supplied was more than 10 to 15 times that required for combustion. The reverse gas flow was highest with high air speeds at outlet from the swirler and high angles of swirl. Consideration of the air and fuel flows, on the basis of the curves given in Fig 2, indicates

A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels

that they are mixed continuously over the length of the swirler and particularly towards the outlet. With this type of conical swirler the high axial velocity gradients ensure mixture formation and combustion of medium and heavy fuel over a comparatively short length of the combustion chamber. Operating tests on a full-scale combustion chamber showed that the total hydraulic losses of the chamber are 4 to 5% of the available head at the inlet to the combustion chamber. If the blade angles in the swirler are reduced and the air speed is cut down the hydraulic losses can be reduced to 3 to 3.5%. Burner tests were made with gas oil, diesel fuel and heavy fuel oil grade F-12 of viscosity 2.7 degrees Engler at 75°C and 1.8° Engler at 100°C. The fuel oil was heated to a temperature of 70 to 100°C before burning but the other fuels were not heated. The main properties of the fuels are stated. With the lighter fuels the volumetric loading on the chamber lay in the range 5 x 10^6 to 18 x 10^6 kcal/m^3hour atm.

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A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels

The combustion chamber operated stably with the excess air factor in the flame tube within the range 1.3 to 2.5. The absence of incomplete combustion products near the end of the chamber shows that there is still some possibility of increasing the thermal loading at the given pressure and volume. It will be seen from the gas analysis curves given in Fig 3 that products of incomplete combustion were not observed under any conditions. It will be noticed that the excess air factors are uniform over the entire central section of the flame tube when the conical swirler is used and this promotes complete combustion of the fuel. This shows that one of the main disadvantages of the flat swirler, such as is illustrated in Fig 4, has been overcome. The most difficult operating conditions occurred at light loads. When the combustion chamber with conical swirler operated with outlet gas temperatures of 460°C and less the mean excess air factor in the volume of the flame tube reached 2.5. With a pressure of 35 atm on the nozzle 43% of the fuel was in drops of

A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels

100 to 180 microns. However, combustion remained very satisfactory, there was no coke formation or smoking. For the tests on fuel-oil minor modifications were made to the combustion chamber and the test conditions are given. With fuel oil also combustion was completed in the first section of the chamber and the gas analysis curves given in Fig 3 show that combustion was complete in all the tests. However, in the fuel oil tests there were some losses because of mechanical under-combustion with coke formation. The gas temperature at the central part of the end of the combustion chamber near the mixers reached 1,400°C on full load tests. After the tests the whole chamber was clean except for a thin layer of soot on the cone of the flame tube and very light deposits on the outlet edges of the swirler. In later tests, the first slot delivering air to the flame tube immediately beyond the conical part was fully closed. This caused some reduction of the amount of excess primary air and consequently increased the gas

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A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels

temperature on the periphery of the active combustion zone. This is particularly important because large particles of fuel reaching the periphery of the chamber where the gas flow temperature is comparatively low (360 to 500°C) tended to remain there, see temperature distribution curve, Fig 5. This impaired combustion led to coke and soot formation. Combustion remained chemically complete even with the first slot closed. Variations in the excess air factor over the length of the flame tube are plotted in Fig 6. At light loads the excess air factor in the active combustion zone increased to about 1.5 and before the mixer to about 2.1 which shows that fuel oil grade F-12 can be burnt in this type of combustion chamber intended for burning medium fuels. However, it is necessary to ensure that the combustion temperature is 1,100°C and higher under all conditions of operation and to ensure this the excess air factor in the central sections of the flame tube should not be greater than 2.0 to 2.1 at light loads. Operating conditions of the metal in the

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A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels

combustion chamber are then considered. Temperature conditions are most severe in the flame tube and the factors that influence flame tube temperature are discussed. Curves of the metal temperature in the flame tube are given in Fig 7 from which it will be seen that with an incoming air temperature of 165°C and an outlet gas temperature of 670°C the flame tube does not exceed 520°C. When the outgoing gas temperature is raised to 730°C and the air temperature to 230°C the temperature of the flame tube wall does not exceed 600°C. Under these conditions the primary excess air factor ranged from 1.7 to 1.92. Measurements showed that the temperature of the flame tube wall does not vary much over the length but in some tests it varied over the perimeter. This probably resulted from uneven distribution of air round the annular slot of the chamber. The influence of the type of fuel on the flame tube temperature was investigated and on changing from

Card 7/9 gas oil to fuel oil the maximum temperature of the flame

A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels

tube rose from 500 to 600°C to 600 - 690°C. A curve of the maximum mean temperature of the flame tube as function of the mass air speed in the annular gap of the chamber is given in Fig 8. Over the air speed range of 20 to 45 kg sec/m^3 the flame tube temperature ranged from 420 to 470°C. In these tests the flame temperature ranged from 1240 to 1460°C and the air temperature from 150 to 220°C. It will be seen from the results given in Fig 9 that the temperature of the outer frame of the combustion chamber depends mainly on the air temperature and for example, with air temperature of 70°C the frame temperature does not exceed 120°C whilst with an air temperature of 160°C the wall temperature is 170°C and with the greatest air temperature of 230°C the frame temperature is 250°C. It is concluded that combustion chambers of this design can be used for gas turbines covering a wide range of outputs by altering the number and size of the chambers.

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SOV/96-59-2-5/18

A Highly Rated Gas Turbine Combustion Chamber for Medium and Heavy Liquid Fuels

This design of chamber is also suitable for burning natural gas. There are 9 figures.

ASSOCIATION: Tsentral'nyy Kotloturbinnyy Institut (Central Boiler Turbine Institute)

Card 9/9

POLYATSKIN, M.A., kand.tekhn.nauk; SHATIL', A.A., kand.tekhn.nauk; KHAYKOVSKIY, Ya.S., inzh.; BABKIN, V.N., inzh.

Certain data on heat exchange in the combustion chamber of a gas turbine system operating on natural gas. Teploenergetika 8 no.7: 68-72 Jl '61. (MIRA 14:9)

1. TSentral'nyy nauchno-issledovatel'skiy kotloturbinnyy institut imeni I.I. Polzunova i Khar'kovskiy turbogeneratornyy zavod.

(Gas turbines) (Heat--Transmission)

S/114/61/000/007/003/003
E194/E455

26.2130

AUTHORS: Polyatskin, M.A., Candidate of Technical Sciences, Shatil', A.A., Khaynovskiy, Ya.S., Engineer and Babkin, V.N., Engineer

TITLE: Natural gas burners for gas-turbine combustion chambers

PERIODICAL: Energomashinostroyeniye, 1961, No.7, pp.34-36

TEXT: In designing the combustion chamber for a gas turbine type ГТУ-50-800 (GTU-50-800) burning natural gas, insufficient information was available about burner design. Accordingly, TsKTI and KhTGZ made a joint investigation of burners in an experimental combustion chamber which was described in an article by M.Polyatskin and Z.M.Svyatskiy in Teploenergetika, 1959, No.2. The main object was not so much to find the best burner for burning natural gas as to study the main features of certain very different types of burner. Accordingly, besides studying completeness of combustion, an attempt was made to study the influence of the burner design on flame structure. As the process of mixing gas with air governs burner operation, three types of burner, illustrated in Fig.2, were tested. The first of these (Fig.2a)

S/114/61/000/007/003/003
E194/E455

Natural gas burners ...

uses a conical swirler, which allows preliminary mixing of gas and air in the actual burner. The second (Fig.2b) has a flat swirler with hollow blades, gas being delivered through holes in the blade; it allows only partial mixing of fuel and air in the burner. In the third type (Fig.2B) the gas and air are mixed in the actual combustion chamber. A number of variants on these basic designs were tested. The usual kinds of measurements were made and, in addition, gas samples were taken for analysis at various places in the flame tube and measurements were made of the gas temperature. Curves of completeness of combustion and of temperature distribution were plotted and the influence of various minor design modifications on the performance were studied with such curves. With natural gas, combustion was most complete with the burner with conical swirler but it could operate only over a narrow range of excess-air factor. The burner with flat swirler with the gas delivered through hollow blades was more stable, particularly when there was no preliminary mixing of gas and air. Studies of temperature distribution and gas analysis distribution were made with various design modifications and, in general, the following

POLYATSKIN, M.A.; YUDIN, V.F.

Inertness of the process of solid fuel gasification in a bed. Gaz. prom. no.10:18-21 O '58. (MIRA 11:11)
(Coal gasification)

L 11093-66 EPA/EWT(1)/ETC(F)/EWP(f)/EPF(n)-2/T-2/ETC(m)/EWG(m) WW

ACC NR: AT5016897 SOURCE CODE: UR/0000/64/000/000/0432/0439

AUTHOR: Polyatskin, M. A.; Tass, O. A. 44,55 44,55

ORG: none

TITLE: Intensification of convective heat transfer in the combustion chamber of a gas turbine

SOURCE: Konvektivnaya teploperedacha v dvukhfaznom i odnofaznom potokakh (Convective heat transfer in two-phase and single-phase flows). Moscow, Izd-vo Energiya, 1964, 432-439

TOPIC TAGS: heat transfer, convective heat transfer, flame tube, combustion chamber

ABSTRACT: The lowering of metal temperature of gas turbine combustion chamber flame tubes is studied. Two simple and effective methods of enhancing heat transfer in the tubes--the establishment of transverse fins on the tube surface and washing the tube surface with a swirling current are used. Designs for flame tubes and experimental combustion chambers for gas fuels are discussed. The optimum spacing of ribbed fins for maximum heat transfer in circular flame tubes is determined. Heat transfer is also increased through the use of cross ribbing. Pressure losses to friction against the ribbing were found to be insignificant. Experimental data are given on the coef-

Card 1/2

POLYATSKIY, M.A., kand.tekhn.nauk; SVYATSKIY, Z.M., kand.tekhn.nauk

Highly forced combustion chamber for average and heavy liquid fuels in gas turbine installations. Teploenergetika 6 no.2:33-39 F '59. (MIRA 12:3)

1. TSentral'nyy kotloturbinnyy institut.
(Gas turbines)

POLYANTSEV, V. A.

Cand Med Sci - (diss) "Study of the interaction of unconditioned reactions on the level of reticular formation of the brain stem." Moscow, 1961. 20 pp; (Ryazan' Med Inst imeni Academician I. P. Pavlov); 200 copies; price not given; (KL, 7-61 sup, 261)

POLYATSKIY, V. T.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow, Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Povolotskiy, A. I. (Leningrad). On the Structure of Spectrum of Nonlinear Equation. 118-119

Polyatskiy, V. T. (Odessa). Reduction of Quasiunitary Operators to Triangular Forms. 119-120

Mention is made of Livshits, M. S.

Sakhnovich, L. A. (Odessa). On the Reduction of Non-self-conjugate Operators to Diagonal Form. 120-122

Mention is made of Keldysh, M. V., Tamarkin, Ya. D. and Naymark, M. A.

There are 6 references, 5 of which are USSR, and 1 is English.

Kharazov, D. F. (Tbilisi). Linear Equations With Completely Continuous Operators, Which are Polynomially Dependent on Parameters. 122

Card 38/80

POLYATSKIY, V. F.

On the reduction of quasi-unitary operators to a triangular form.
Dokl. AN SSSR 113 no.4:756-759 Ap '57. (MLRA 10:6)

1. Odesskiy pedagogicheskiy institut im. K.D. Ushinskogo. Predstavleno akademikom A.N. Kolmogorovym.
(Operators (Mathematics)) (Hilbert space)

POLYAKOV, V.S. (Moskva)

Analyticity of the solution of a certain equation. Dok. AN SSSR 170 no.4:719-721 '66. (MIRA 19:2)

POLYATSKIN, M. A., (Cand.Tech.Sci.), BURGVITS, G. A. (Eng.)

"Testing the High-capacity Combustion of Blast-furnace Gas"

(Theory and Practice of Gas Combustion; Transactions of a Scientific and Technical Meeting) Leningrad, Gostoptekhizdat, 1958. 343 p.

POLYATSKIN, M.A.; YUDIN, V.F.

Studying the gasification of anthracite and coke dust with steam and air injection. Gaz. prom. no.8:8-12 Ag '58. (MIRA 11:8)

(Coal gasification) (Coke)

POLYATSKINA, B. M.

"Effect of Solvents and Temperature on the Copolymerization Constants of Vinylacetate and Monomethylmaleate, " Zhur. Prik. Khim., 24, No. 3, 1951. Chair Plastics, Leningrad Tech. Inst. Lensovet,

-c1951-.

POLYATSKINA, B. M.

A

[illegible], B.L., Kiseleva, A.F., and Polyatskina, B.M. (Chair of Physics, [illegible] Leningrad Institute o[illegible]), The effect of solvents and temperature on the constants of copolymerization of vinylacetate and vinylpyrrolidone, 27(89)-99

Immediate source clipping

USHAKOV, S.N.; MITSENGENDLER, S.P.; POLYATSKINA, B.M.

Application of newer methods of study to copolymerization of vinyl acetate with the maleates. Khim. i Fiz. Khim.Vysokomolekul. Soedineniy , Doklady 7-oy Konf. Vysokomolekul. Soedineniyam '52, 19-27. (MLRA 5:7) (CA 47 no.15:7820 '53)

POLYATSKINA, B. M.

USSR/Chemistry - Synthetic Resins and Elastomers

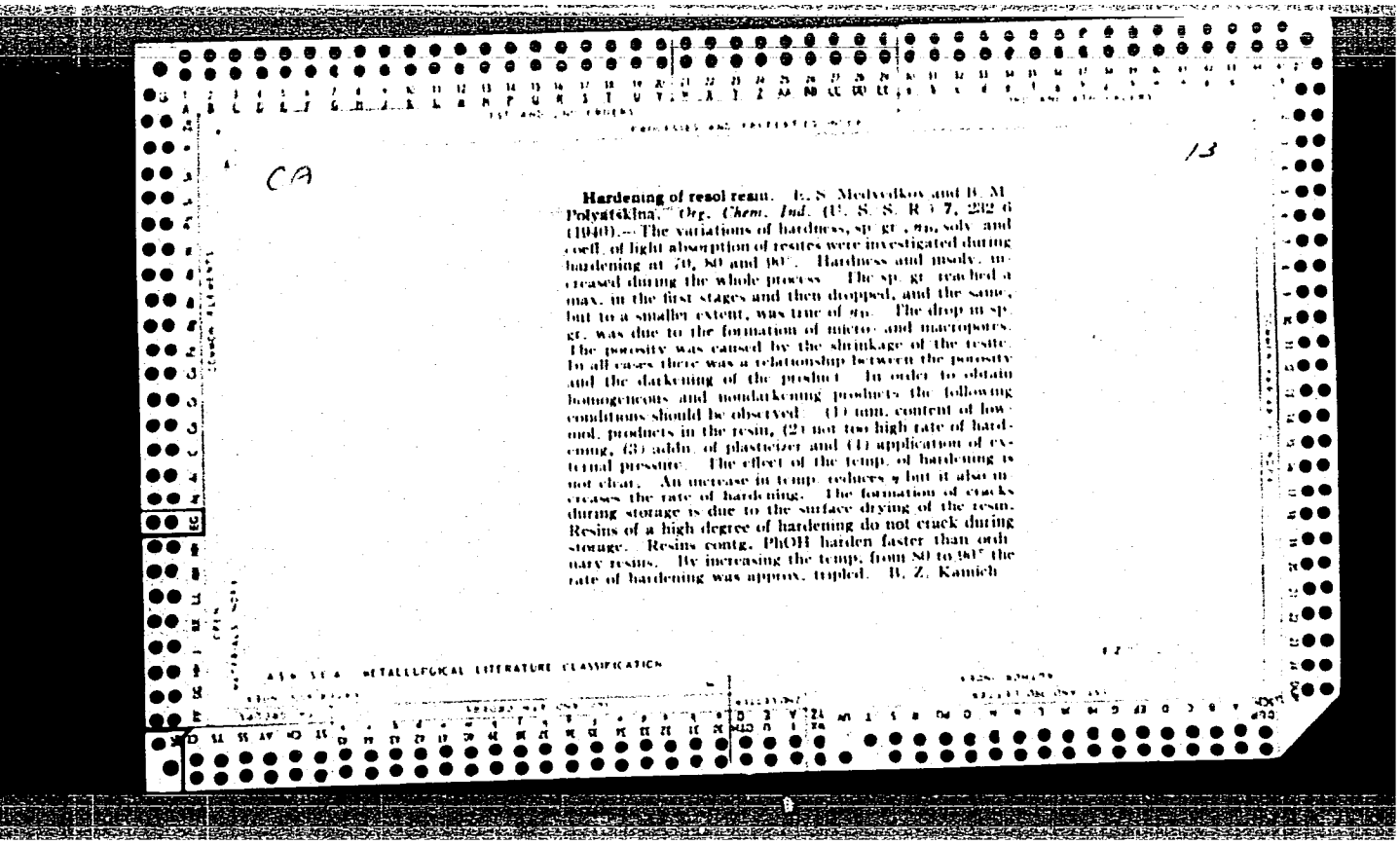
Mar 51

"Effect of Solvents and Temperature on the Copolymerization Constants of Vinylacetate and Monomethylmaleate," S. N. Ushakov, S. P. Mitsengendler, B. M. Polyatskina, Chair of Plastics, Leningrad Tech Inst Imeni Lensovet

"Zhur Prik Khim" Vol XXIV, No 3, pp 289-295

Examd effects of solvents and temp on const o and u of copolymerication of vinylacetate and monomethylmaleate. Found no change of const in presence of solvents. As to temp, found both const approximately doubled between 56 and 78°C, but temp actually had small effect on compn of copolymers.

177T28



CA

13

Hardening of resol resin. E. S. Medvedkov and B. M. Polyatskina. *Org. Chem. Ind.* (U. S. S. R.) 7, 232-6 (1940).—The variations of hardness, sp. gr., η, soly. and coeff. of light absorption of resites were investigated during hardening at 70, 80 and 90°. Hardness and modv. increased during the whole process. The sp. gr. reached a max. in the first stages and then dropped, and the same, but to a smaller extent, was true of η. The drop in sp. gr. was due to the formation of micro- and macropores. The porosity was caused by the shrinkage of the resite. In all cases there was a relationship between the porosity and the darkening of the product. In order to obtain homogeneous and nondarkening products the following conditions should be observed: (1) min. content of low-mol. products in the resin, (2) not too high rate of hardening, (3) addn. of plasticizer and (4) application of external pressure. The effect of the temp. of hardening is not clear. An increase in temp. reduces η but it also increases the rate of hardening. The formation of cracks during storage is due to the surface drying of the resin. Resins of a high degree of hardening do not crack during storage. Resins contg. PhOH harden faster than ordinary resins. By increasing the temp. from 80 to 90° the rate of hardening was approx. tripled. B. Z. Kamich

A 1 0 Y E A METALLURGICAL LITERATURE CLASSIFICATION

13 Foundry Practice and Appliances

Met Abs.
V.G.

Alloys for Pressure Die-Casting. V. M. Polyatskix (*Optiko-Mekhan. Prom. (Optico-Mech. Ind.)*, 1939, (6-7), 28-30; *Khim. Referat. Zhur.*, 1940, (1), 98; *C. Abs.*, 1942, **36**, 1281). [In Russian.] The compositions, properties, and applications of aluminium, copper, and zinc alloys for casting under pressure are given. These alloys must not be brittle at high temperatures and must possess small shrinkage value and a high plasticity in the hot state. The most suitable aluminium alloys are Silumins containing 10-12 and 8-9% SILICON and 0.5% zinc and 0.9% copper; higher concentrations of these elements decrease the plasticity of the alloys. Special attention must be given to removing Al_2O_3 from the alloys and to the content of FeO, which should not exceed 0.6%. The most suitable copper alloys are those that are not high-melting and possess good casting properties; they contain zinc 18, silicon 1.8-2.0, and aluminium 5%. These alloys have a tensile strength of about 30 kg./mm.^{2}, a Brinell hardness of 150-180, and an elongation of 2.3%. The zinc alloys are most suitable, owing to their specific properties, but are not widely used for the production of various apparatus owing to their high sp. gr., corrosive properties, and tendency to ageing. The last two disadvantages can be avoided by the use of pure zinc with additions of magnesium and nickel. Decomposition of the β phase in zinc alloys with 4% aluminium is retarded by the addition of 3% copper and 0.1% magnesium. This decomposition decreases the volume and the strength of the alloy. Zinc alloys containing tin 5-25, copper 3, and aluminium 0.3-0.5% or containing aluminium 5, copper up to 4%, and no tin, can also be used. All zinc alloys must be aged at 90°C. for 100 hrs.

POLYATSKIY, V.T.

3

O Privedenii k Treugol'nomu Vidu Kvaziunitarnykh Operatorov. V. T. Poliatskii. *AN SSSR Dokl.*, Apr. 1, 1957, pp. 750-752. In Russian. Discussion of the reduction of quasi-unitary operators to a triangular form.

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MT

PA - 3036

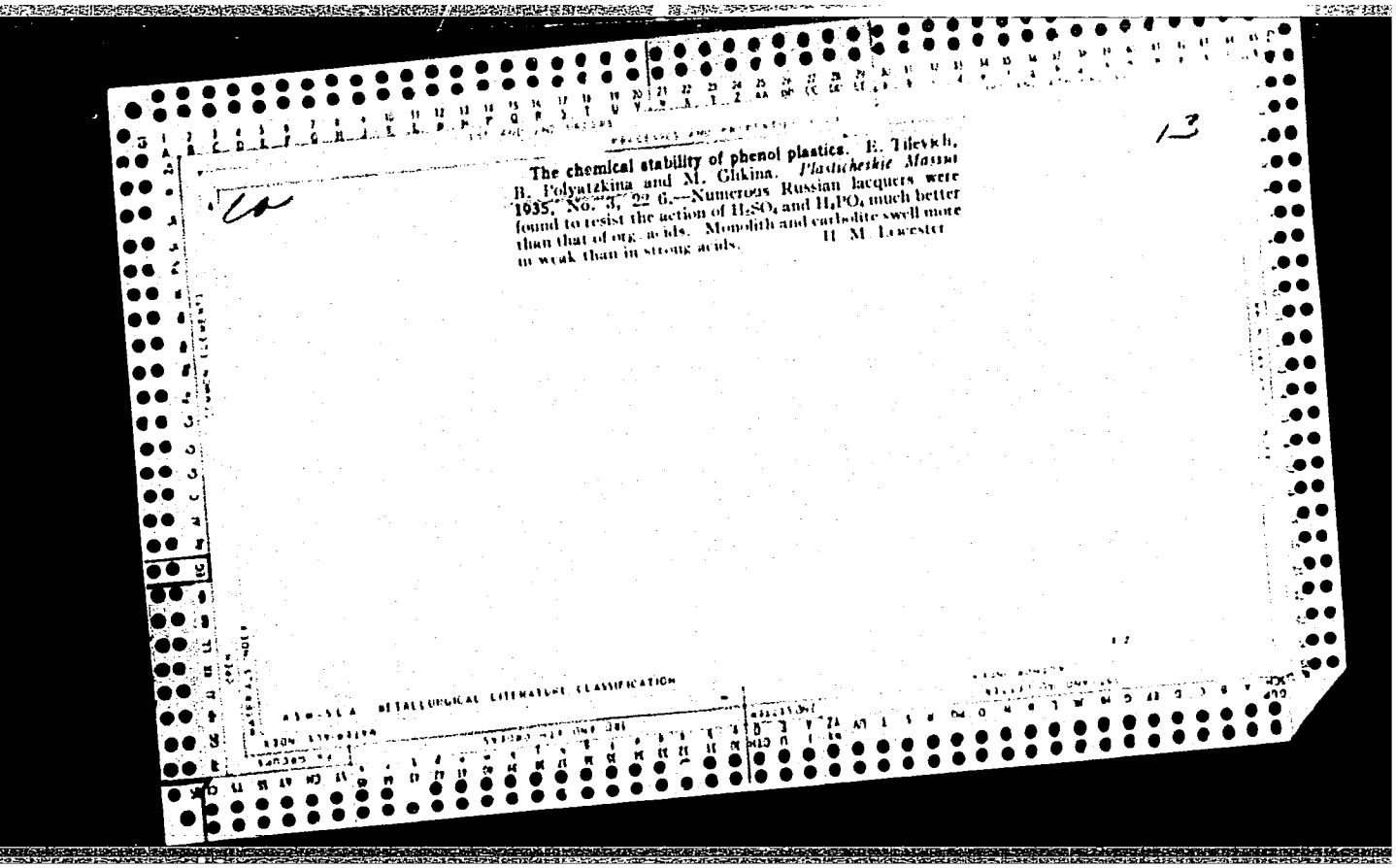
AUTHOR POLYATSKIY V.T.

TITLE On the Reduction of the Quasiunitary Operators to the Triangular. (O privedenii k treugol'nomu vidu kvaziunitarnykh operatorov -Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 756-759 (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT The quasiunitary operators discussed here are defined in HILBERT'S space H. The operator T defined in the HILBERT space is quasi-unitary in that case, in which the operators $I-T^*T$ and $I-TT^*$ are finitely dimensional. The quasiunitary operators T investigated here satisfy the following conditions: 1) $\dim (I-T^*T)=\dim(I-TT^*)$; 2) At least one point ζ_0, $|\zeta_0|<1$, exists, which is regular for the resolvents of the operator T. Next, the author gives some more definitions. The maximum subspace $\mathfrak{M}_T \subseteq G_T$, which is invariant with respect to T, is here described by the authors as an additional component of the operator T. If $\mathfrak{M}_T = 0$ holds, the quasi-unitary operator is described as being simple. The additional component is identical with the orthogonal supplement of the linear closed shell $T^{*k}D_T$ ($k=0,\pm 1, \pm 2,\ldots$). When examining the orthonormed bases $\{e_k\}$, $\{e'_k\}$ ($k=1,2,\ldots,r$), the matrix function $W_T(\zeta) = \|W(\zeta)e_k e'_j)\|_{k,j=1}^{r}$ is introduced which is here a normed characteristic matrix function of the quasiunitary operator. For $w_T(\zeta)$ an additional equivalent form is explicitly given.

Card 1/2 The author next costructs the triangular model $\vec{T}$ of a quasiunitary operator



The chemical stability of phenol plastics. B. Tilevich, B. Polyatzkina and M. Glikina. *Plasticheskie Massui* 1935, No. 3, 22 6.—Numerous Russian lacquers were found to resist the action of H_2SO_4 and H_3PO_4 much better than that of org. acids. Monolith and carbolite swell more in weak than in strong acids. H. M. Leicester

S/145/60/000/005/010/010
32028
D221/D301

10.3200
26.2181

AUTHOR: V.M. Polyayev, Candidate of Technical Sciences

TITLE: Experimental investigation of the flow of the evaporating liquid film on the surface of a cone in a gas stream

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 5, 1960, 140 - 148

TEXT: The author considers the protection of a hot wall by a liquid film at its surface. The economy of this method depends on the adherence of the film to the surface. The quantity of heat raising the temperature of the film in a unit of time in an element dx (between two sections of the conical surface) is

$$d Q_2 = G_x C_f d \frac{\theta_b + \theta_x}{2},$$

where G_x is the flow of liquid in the element, in kg/sec; C_f is the specific heat of the liquid, in Kcal/kg.degrees; θ_b is the temperature

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32028

Experimental investigation ... S/145/60/000/005/010/010
D221/D301

ASSOCIATION: MVTU im. Baumana (MVTU im Bauman)

SUBMITTED: March 16, 1960

Card 4/4

POLYAYEV, V.M., kand.tekhn.nauk

Experimental investigation of evaporation cooling of the surface of a porous cone in a high-temperature gas flow. Izv.vys.ucheb.zav.; mashinostr. no.7:149-160 '60. (MIRA 13:11)

1. Moskovskoye vysshaye tekhnicheskoye uchilishche imeni Baumana.
(Cooling)

POLYAYEV, Vladimir Mikhaylovich; CHERNOV, Vsevolod Aleksandrovich

[Enthalpy-entropy diagrams for the combustion of a hydrocarbon fuel in air; manual]Diagrammy ental'piia-entropiia dlia sgoraniia s vozdukhom uglevodorodnogo goriuchego; uchebnoe posobie. Moskva, Izd.MVTU, 1961. 16 p. tables, diagrs. (MIRA 15:8)

(Combustion) (Hydrocarbons)

POLYAYEV, V.M., kand.tekhn.nauk, dotsent; BASHMAKOV, I.V., inzh.

Calculating turbulent boundary layer in supplying coolant through a porous wall. Izv.vys.ucheb.zav.; mashinostr. no.11:118-128 '61. (MIRA 14:12)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. N.E.Baumana.
(Boundary layer)

L 07435-67 EWP(k)/EWT(m)/EWP(e)/EWP(t)/ETI IJP(c) MJW/JD/HW/JG

ACC NR: AP6029223 SOURCE CODE: UR/0145/66/000/004/0151/0156

AUTHOR: Malin, A. P. (Engineer); Sukhov, A. V. (Aspirant); Gromova, S. P. (Engineer); Polyayev, V. M. (Candidate of technical sciences); Borok, B. A. (Candidate of technical sciences)

ORG: None

TITLE: Development of technology for producing porous fittings

SOURCE: IVUZ. Mashinostroyeniye, no. 4, 1966, 151-156

TOPIC TAGS: porous metal, powder metallurgy, hydrostatic pressure, nichrome alloy, stainless steel

ABSTRACT: The article is a summary of work on the production of porous pipes from nichrome, molybdenum, stainless steel and nickel by powder metallurgy methods. The best materials for this purpose are Kh80N20 nichrome powder produced by joint reduction, or a mixture of GNKh5-48-NP nickel and TsNIIChm TU 1-53 chromium powders. Experiments on development of technology for manufacturing porous fittings from these metal powders showed that pipe sections with a wall thickness from 15 to 0.5 mm may be produced by hydrostatic pressing and sintering in hydrogen furnaces. This method may be used for producing porous fittings with a height which is limited only by the dimensions of the hydrostatic press and the sintering furnace with theoretically unlimited possibilities

Card 1/2 UDC: 621.9-496

POLYAYVSKIY, I.P.

2681. ACCUMULATION OF METHANE IN COAL BUNKERS OF PREPARATION PLANTS. Petrukhin, P.M. and Polyalvskii, I.P. (Ugol (Coal), Apr. 1954, 9, 10). This danger is greater with wet coal than with dry. Suggestions are made for avoiding it by ventilating bunkers with extraction fans or by natural draught, and by providing smooth ceilings so that gas cannot accumulate in corrugations. (L).

(1)

POLYATSKIY, V. T., Cand Phys-Math Sci -- (diss) "Reduction of some non-unitary operators to triangular form." Kiev, 1960. 10 pp; (Joint Academic Council of the Inst's of Mathematics, Physics, and Metallophysics of the Academy of Sciences Ukrainian SSR); 150 copies; price not given; bibliography at end of text (10 entries); (KL, 27-60, 148)

POLYBOYARINOV, D.N.; GUZMAN, I.Ya.; NISHANOVA, I.Ye.

Structure and certain properties of porous, ZrO_2-base ceramics.
Trudy MKHTI No.37:166-179 '62. (MIRA 16:12)

POLYBOYARINOV, D.N.

BUDNIKOV, Petr Petrovich; redaktor; BEREZHNOY, Anatoliy Semenovich; BULAVIN, Ivan Anisimovich; GRISSIK, Boris Mikhaylovich; KUKOLEV, Grigoriy Vladimirovich; POLYBOYARINOV, Dmitriy Nikolayevich; AVGUSTINIK, A.I., doktor tekhnicheskikh nauk, professor, retsenzent; GLEZAROVA, I.L., redaktor; PANOVA, L.Ya., tekhnicheskiy redaktor.

[Technology of ceramics and refractory materials] Tekhnologiia keramiki i ogneuporov. Pod obshchei red. P.P. Budnikova. Izd. 2-e, perer. Moskva, Gos.izd-vo lit-ry po stroit. materialam, 1955. 698 p. (MLRA 8:12)

1. Deystvitel'nyy chlen AN USSR. 2. Chlen korrespondent AN SSSR. (Ceramic industries) (Refractory materials)

SOV-128-58-9-12/16

AUTHORS: Moskovtsev, F.I., Polychalov, Yu.M., Verkhoshapov, A.I., Redenskiy, V.A., Kul'bitskaya, A.Ya., Dvali, G.S., Fomin, S.F., Ebralidze, L.I., Shkundin, R.M.

TITLE: Letters to the Editor (Nam pishut)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 9, pp 23-24 (USSR)

ABSTRACT: In the letters, an improved hammer head for pile-drivers is described and a device for preventing the sticking of molding matter by compressed air. Methods of casting the ball bearing of the refrigerating compressor type ChAU-8 by centrifugal power, to produce distributing plates for foundry heads from quartz sand, and to charge the blast apparatus with metal shot, are also described.
There are 5 diagrams.

1. Pile drivers--Equipment 2. Molding materials--Performance
3. Compressed air--Applications 4. Ball bearings--Casting
5. Sand--Applications 6. Quartz--Applications 7. Shot blasting --Equipment

Card 1/1

POLYCHALOV, Yu.M.

Device to avoid bridging of foundry sands in hoppers. Lit. proizv. no.9:24 S '58. (MIRA 11:10)
(Sand, Foundry) (Pneumatic tools)

POLYDOR, J.

"Z. Vitamvas and R. Svoboda's Elektronicke hudebni nastroje (Electronic Musical Instruments); a book review. (Supplement)" p. L19.

SLABOPROUDY OBZOR. (MINISTERSTVO PRESNEHO STROJIRENSTVI, MINISTERSTVO SPOJU A VEDECKA TECHNICKA SPOLECNOST PRO ELEKTROTECHNIKU PRI CSAV.) Praha, Czechoslovakia, Vol. 20, no. 3, Mar. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959. Uncl.

POLYDOROVA, M.

Conference of the experts of the Council for Economic Mutual Assistance on the ionizing radiation. Jaderna energie 8 no.12: 450-451 '62.

POLYDOROVA, Marie

Sampling of finely dispersed aerosols for electron microscopy.
Chem listy 58 no. 3:312-314 Mr '64.

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.